

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Nicolas Goujon, Johan F. Naes, Rune Voldsbekk	Confirmation: 4412
Serial No.: 10/529,186	Examiner: Ian Lobo
Filed: May 1, 2007	Atty. Dkt. No.: 2088.001100
For: MULTI-PART SEISMIC CABLE	Client Docket: 14.210 PCT US
	Art Unit: 3662

**REPLY BRIEF****Mail Stop Appeal Brief – Patents**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants hereby submit this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer dated January 21, 2010, for which a response is due March 21, 2010. That date falling on a Sunday, the date for response rolls to the next business day. 37 C.F.R. §1.7. This paper is therefore timely filed. It is believed that no fee is due, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Commissioner is authorized to deduct said fees from Williams, Morgan & Amerson, P.C. Deposit Account No. 50-0786/2088.001100.

As noted in the “Appeal Brief”, claims 1-10, 13-20, 24, and 29-35 are pending in the case, claims 11-12, 21-23, and 25-28 having previously been canceled. The “final” Office Action rejected each of claims 1-17, 19-32, and 34 as follows:

- claims 1-10, 13-14, 16-17, 24, 29, 30 and 32 as being anticipated under 35 U.S.C. §102(a) and/or (c) by U.S. Letters Patent 6,477,111 (“Lunde”); and
- claims 1, 19-20, 29 and 34 as being anticipated under 35 U.S.C. §102(b) by U.S. Letters Patent 4,398,276 (“Kuppenback”).

Applicant replies to the Office's response by rejection.

**A. CLAIMS 1-10, 13-14, 16-17, 24, 29, 30 & 32 ARE NOVEL OVER LUNDE**

The Office Action rejected claims 1-10, 13-14, 16-17, 24, 29, 30 and 32 as being anticipated under 35 U.S.C. §102(a) and/or (e) by U.S. Letters Patent 6,477,111 ("Lunde"). The independent claims 1 and 29 recite that the attachments along the two cables are at a plurality of points such that the "signal cable" is "mechanically decoupled" from the "tension support cable". Lunde, on the other, attaches the two cables throughout their length such that they are not mechanically decoupled.

In response to Applicant's argument establishing this proposition, the Office stated:

Appellant first argues the merits of claims 1 and 29 over the Lunde et al patent by noting that Lunde et al mechanically couples the sensor modules to the stress member, and details Fig. 8 in Lunde et al as showing the mechanical coupling. However, as noted in the rejection, it is not Fig. 8 that is utilized in the rejection, but rather the embodiment disclosed in Fig. 11 of Lunde et al that anticipates the instant claims. In Fig. 11 it is clearly shown that the stress members (32) are mechanically decoupled from the signal cable (36) by the element (38c).

("Examiner's Answer", p. 6) There are at least three errors in this response.

The first error is that it misrepresents the rejection. The "final" rejection, in pertinent part, was:

Per claims 1 and 29, Lunde et al discloses a seismic cable (*see Figs. 1 and 11*) that includes a tension support cable (32), a signal cable (36) attached to the support cable at a plurality of first points (38c) spaced along the length of the signal cable at a plurality of second points (38c), and at least one sensor (30) disposed on the signal cable at a third point (30).

(Office Action dated January 15, 2009, p. 2, emphasis added) Accordingly, the rejection was predicated not only on the embodiment of FIG. 11, but also the embodiment of FIG. 1.

Second, the response mischaracterizes Applicant's argument. Applicant argued:

Lunde, on the other hand, quite clearly mechanically couples the sensor modules to the stress member. ***This is best seen in the subassembly of Fig. 8 in Lunde***, reproduced below, and first discussed in col. 4, lines 9-36. The cable comprises stress members ("tension support cable") 32, optical fiber bundles (i.e., "signal cables") 36, and hydrophone assemblies (i.e., "sensor modules") 30. The cable also includes electronics modules 34 and buoyancy pills 38, neither of which have any counterparts in the claims.

(“Appeal Brief”, p. 7, emphasis added) Applicant never stated that the rejection was based on FIG. 8, but only that FIG. 8 best illustrated the point in issue.

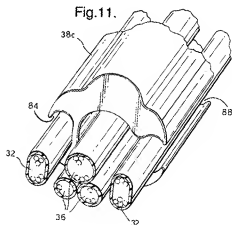
The third error is that the embodiment of FIG. 11 also does not anticipate the claims. The embodiment of FIG. 11 (and FIG. 12) merits only a single paragraph:

Thus in the embodiment of FIGS. 11 and 12, the buoyancy pills, only one of which is shown at 38c, are generally C-shaped in cross section, with an outwardly facing partly open channel 84 formed in the upright part of the C-shape for receiving one of the Kevlar stress members 32. The wire and optical bundles 36 are received in the hollow space 86 within the C-shape, while a second channel 88 is defined between the opposed extremities of the C-shape and receives the other Kevlar stress member 32. *The material of buoyancy pill 38c is sufficiently resilient for the channels 84, 88 to be opened up to fit over the Kevlar stress members and the wire and optical fibre bundles 36, and then to partly close again to engage and grip those components. This engagement is enhanced for at least the channel 84 by including in it a small projection 90, which slightly "digs into" its Kevlar stress member 32 to inhibit movement of the buoyancy pill along the stress member.*

(Lunde, col. 8, lines 15-32, emphasis added) FIG. 11 is reproduced herein.

It is clear from both the description and the drawing that buoyancy pill “tightly grips” the stress members 32 and the bundles 36, so tightly in fact that it “digs into” the stress members 32. *This will guarantee a very strong mechanical coupling between the stress members 32 and the bundles 36 through the buoyancy pill 38c.* This is completely the opposite of “mechanically decoupling” the “signal cable” from the “tension support cable”. Indeed, this is so completely opposite that it would constitute “teaching away” in an obviousness context.

Lunde therefore fails to teach that the attachments along the two cables are at a plurality of points such that the “signal cable” is “mechanically decoupled” from the “tension support cable” as is recited in independent claims 1 and 29. The dependent claims incorporate this limitation by virtue of their dependence through operation of law. 35 U.S.C. §112, ¶4. Claims 1-10, 13-14, 16-17, 24, 29, 30 and 32 are therefore novel over Lunde.



**B. CLAIMS 1, 19-20, 29 AND 34 ARE NOVEL OVER KUPPENBACK**

The Office Action rejected claims 1, 19-20, 29 and 34 as being anticipated under 35 U.S.C. §102(b) by U.S. Letters Patent 4,398,276 (“Kuppenback”). Kuppenback does not teach or suggest a “tension support cable” that is “capable of absorbing tension during deployment of the seismic cable” as each of the independent claims 1 and 29 now recite. The alleged support cable of Kruppenbach (*i.e.*, line 30) does not operate during retrieval. Kruppenbach’s line operates in that capacity only during retrieval.

The Office responded:

Appellant next argues that Kuppenback does not teach or suggest a tension support cable that is “capable of absorbing tension during deployment of the seismic cable”. Specifically, appellant argues that Kuppenback only provides for the tension support cable being capable of absorbing tension during retrieval of the cable and not during deployment of the cable, as instant claimed. This argument is not convincing since on col. 4, lines 3-8, deployment of the tension cable and signal cable is suggested. Therefore, not only is the tension cable “capable of absorbing tension” during retrieval but also during deployment.

(“Examiner’s Answer”, p. 6) The cited portion of Kuppenback reads:

The technique also permits a rapid deployment of the geophone sensor string 10 by releasing the line 30 so that the sensor string may be extended to its full length. The technique of the present invention further permits the efficient gathering and deployment of seismic cable.

(Kuppenback, col. 4, lines 3-8) Contrary to the Office’s response, there is no suggestion that the line 30 ever absorbs tension during deployment. There is absolutely no other discussion of deployment in Kuppenback.

Furthermore, the Office only states that such a teaching is “suggested”. Either Kuppenback teaches the limitation or it does not. If it teaches the limitation, it either teaches it expressly or inherently. The use of the word “suggested” is an implied concession that Kuppenback does not teach expressly teach the limitation. Nor has the Office established that such a functionality is inherent—for the Office must provide “...some scientific evidence or scientific reasoning to establish the reasonableness of the belief that the limitation is inherent in the prior art.” *Ex parte Skinner*, 2 U.S.P.Q.2d (BNA) 1788, 1789 (Bd. Pat. App. & Int. 1987).

To be inherent, a teaching must “necessarily flow” from the reference’s disclosure. *In re Oelrich*, 212 U.S.P.Q. (BNA) 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d (BNA) 1461, 1463-1464 (Pat. & Tm. Off. Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d

(BNA) 1788, 1789 (Bd. Pat. App. & Int. 1987). Applicant respectfully submits that such a teaching “does not necessarily flow” from Kuppenbach since it is not clear how “releasing the line 30 so that the sensor string may be extended to its full length” necessarily involves the line absorbing tension.

Accordingly, each of the claims does in fact either recite or incorporate the limitation that the “tension support cable” is “capable of absorbing tension during deployment of the seismic cable” that Kuppenbach fails to disclose. Kuppenbach therefore fails to anticipate any of claims 1, 19-20, 29 and 34. M.P.E.P. § 2131; *In re Bond*, 15 U.S.P.Q.2d (BNA) 1566, 1567 (Fed. Cir. 1990).

### C. CONCLUSION

Applicant therefore respectfully submits that the claims are allowable over the art of record. Accordingly, Applicant request that the rejections be REVERSED and the claims allowed to issue.

Respectfully submitted,

Date: March 22, 2010

WILLIAMS, MORGAN & AMERSON  
CUSTOMER NUMBER: 23720  
10333 Richmond Dr., Suite 1100  
Houston, Texas 77042  
(713) 934-4053 ph

/Jeffrey A. Pyle/  
Jeffrey A. Pyle  
Reg. No. 34,904  
Attorney for Applicants